CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM

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B134 Blue Grouse Dendragapus obscurus

Family: Phasianidae Order: Galliformes Class: Aves

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

Uncommon to common permanent resident at middle to high elevations. Occurs in open, medium to mature-aged stands of fir, Douglas-fir, and other conifer habitats, interspersed with medium to large openings, and available water. Inhabits North Coast Ranges in northwestern California, and the Klamath, Sierra Nevada, and portions of the Warner, White, and Tehachapi Mts.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Eats conifer needles (especially fir and Douglas-fir), other leaves, twigs, buds, fruits, flowers, seeds; also insects, land snails and spiders. Winter diet sometimes exclusively needles and buds. Chicks feed largely on arthropods. Plucks vegetation, gleans seeds and arthropods from foliage and ground.

Cover: Firs and other conifers with dense foliage used for roost.

Reproduction: Nests on ground, usually in brushy areas, next to a log, or under low tree branches or shrub cover. Broods young in open grass/forb areas. Territorial male associated closely with fir and Douglas-fir.

Water: Requires water, but can live on succulent leaves and fruits. Seldom found far from water. In Colorado, broods were found an average of 132 m (432 ft) from water, ranging from 15-305 m (50-1000 ft).

Pattern: Requires a mixture of mature conifer habitat, open, brushy conifer stands, and open grass/forb areas, all close to water.

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, diurnal activity.

Seasonal Movements/Migration: May move upslope and downslope with seasons. Often winters in trees in dense stands of firs or other conifers (Hoffmann 1956, Johnsgard 1973).

Home Range: Summer home ranges of broods in Montana averaged 51 ha (126 ac), and varied from 12.5 to 115 ha (31-283 ac) (Mussehl 1960). Breeding home ranges of 15 marked females in Alberta averaged 17.4 ha (43 ac) (Boag 1966).

Territory: In British Columbia, Bendell and Elliott (1966) found territories of a sparsely distributed population to average 2 ha (5 ac), varying from 1.2 to 4.5 ha (3-11 ac). Those of a densely distributed population averaged 0.6 ha (1.5 ac), and varied from 0.4 to 0.8 ha (1-2

ac). In Montana, Blackford (1958) reported 3 territories averaging 2.8 ha (7 ac), and varying from 1.9 to 4.5 ha (4.6 to 11 ac). In Alberta, territories averaged 0.6 ha (1.5 ac), and varied from 0.2 to 0.9 ha (0.6 to 2.3 ac) (Boag 1966).

Reproduction: Breeds from early April to late August; peak activity May through July. Nests April through June; eggs hatch in late May and June after 24-26 day incubation by female. Clutch averages 6-8 eggs; range 3-12. Female tends the precocial young. Male often moves upslope to timbered areas after hooting and mating period. Female and brood may move upslope in late summer to open ridges.

Niche: Often does well in second-growth stands following logging. Heavy grazing of brooding areas (Zwickel et al. 1968, Zwickel 1972a,1972b), and repeated long-term burning (Redfield et al. 1970), may be detrimental to grouse populations. Ravens, crows, various snakes, striped and spotted skunks, long-tailed weasels, ermines, raccoons, bobcats, and goshawks are among the predators reported.

REFERENCES

- Beer, J. R. 1943. Food habits of the blue grouse. J. Wildl. Manage. 7:32-44.
- Bendell, J. F., and P. W. Elliott. 1966. Habitat selection in blue grouse. Condor 68:431-446.
- Blackford, J. L. 1958. Territoriality and breeding behavior in a population of blue grouse in Montana. Condor 60:145-158.
- Boag, D. A. 1966. Population attributes of blue grouse in southwestern Alberta. Can. J. Zool. 44:799-814.
- Grinnell, J., and A. H. Miller. 1944. The distribution of the birds of California. Pac. Coast Avifauna No. 27. 608pp.
- Hoffmann, R. S. 1956. Observations on a sooty grouse population at Sage Hen Creek, California. Condor 58:321-333.
- Johnsgard, P. A. 1973. Grouse and quails of North America. Univ. Nebraska Press, Lincoln. 553pp.
- Lewis, R. A. 1981. Characteristics of persistent and transient territorial sites of male blue grouse. J. Wildl. Manage. 45:1048-1051.
- Mussehl, T. W. 1960. Blue grouse production, movements, and populations in the Bridger Mountains, Montana. J. Wildl. Manage. 24:60-68.
- Redfield, J. A., F. C. Zwickel, and J. F. Bendell. 1970. Effects of fire on numbers of blue grouse. Tall Timbers Fire Ecol. Conf. Proc. 10:63-83.
- Rogers, G. E. 1968. The blue grouse in Colorado. Colo. Game, Fish, and Parks Dep., Denver. Tech. Pub. No. 21. 64pp.
- Zwickel, F. C., I. O. Buss, and J. H. Brigham. 1968. Autumn movements of blue grouse and their relevance to population and management. J. Wildl. Manage. 32:456-468.
- Zwickel, F. C. 1972a. Some effects of grazing on blue grouse during summer. J. Wildl. Manage. 36:631-634.
- Zwickel, F. C. 1972b. Removal and repopulation of blue grouse in an increasing population. J. Wildl. Manage. 36:1141-1152. Montana. J. Wildl. Manage. 38:630-633.